

REMARKS

Status of the Claims

Claims 1-11, 32-50 and 70 are pending in the present application, Claims 12-31 and 51-69 having been previously canceled, in response to a previous restriction requirement, and new Claim 70 having been added in the present amendment. No further amendments to the previously existing claims have been made.

Amendment to the Specification

As required by the Examiner, the specification (specifically the section identifying the related application) has been amended to identify that application Serial No. 09/422,206 has issued as U.S. Patent No. 6,488,900.

Oath/Declaration

The Examiner asserts that the oath or declaration is defective, and a new oath or declaration must be filed. The Examiner's reasoning is based on MPEP 602.01, 602.02, and 37 C.F.R. 1.63(e). The Examiner states that because the application is now a continuation-in-part application (due to the amendment claiming priority to an earlier filed application), a new oath or declaration is required.

Applicants respectfully disagree that a new oath or declaration is required. 37 C.F.R. 1.63(e) specifically states: *A newly executed oath or declaration must be filed in any continuation-in-part application, which application may name all, more, or fewer than all of the inventors named in the prior application.* This contrasts with the filing of a divisional or continuation application, which may use the oath or declaration of the original parent application. The earlier filed application (i.e., the parent) is U.S. Patent No. 6,488,900 (hereafter referred to as the '900 patent). A declaration was properly filed in the '900 patent by Charles J. Call, Mike Powell, Seung-Ho Hong, Ezra Merrill, Alireza Shekarriz, and Patrick Call. The present application, a continuation-in-part application based on the '900 patent, was filed with *a newly executed declaration* (relative to the declaration filed in the '900 patent), and the new declaration was executed by Charles J. Call, Mike Powell, and Seung-Ho Hong. Clearly, the declaration originally filed in the present application is not the same declaration filed in the '900 patent; thus, the requirement established in 37 C.F.R. 1.63(e) has already been met.

A review of MPEP 602 provides no indication as to why a new oath or declaration ought to be required, where the original declaration filed with this CIP clearly satisfies the requirements of 37 C.F.R. 1.63(e). None of the elements required of an oath or declaration as outlined in MPEP 602

1 and 37 C.F.R. 1.63 are missing from the declaration filed in the present application. The amendment
2 to the claim of priority to an earlier filed U.S. patent application does not appear to effect any of the
3 required elements of an oath or declaration. Therefore, it is unclear what statutory or other basis
4 exists for requiring applicant to execute and submit a new declaration. Amendments to the claims,
5 drawings and specification are regularly made to patent applications during prosecution, without
6 triggering a requirement for the submission of a new oath or declaration. Similarly, applicants'
7 previous amendment to the specification to claim priority in an earlier filed application does not
8 appear to require the submission of a new oath or declaration. The required elements of an oath or
9 declaration, each of which is met by the oath or declaration originally submitted in the pending
10 application, are reproduced below.

37 CFR 1.63 Oath or Declaration.

- (a) An oath or declaration filed under § 1.51(b)(2) as a part of a non-provisional application must:

 - (1) Be executed, i.e., signed, in accordance with either §1.66 or §1.68. There is no minimum age for a person to be qualified to sign, but the person must be competent to sign, i.e., understand the document that the person is signing;
 - (2) Identify each inventor by full name, including the family name, and at least one given name without abbreviation together with any other given name or initial;
 - (3) Identify the country of citizenship of each inventor; and
 - (4) State that the person making the oath or declaration believes the named inventor or inventors to be the original and first inventor or inventors of the subject matter which is claimed and for which a patent is sought.

(b) In addition to meeting the requirements of paragraph (a) of this section, the oath or declaration must also:

 - (1) Identify the application to which it is directed;
 - (2) State that the person making the oath or declaration has reviewed and understands the contents of the application, including the claims, as amended by any amendment specifically referred to in the oath or declaration; and
 - (3) State that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in §1.56.

(c) Unless such information is supplied on an application data sheet in accordance with §1.76, the oath or declaration must also identify:

(1) The mailing address, and the residence if an inventor lives at a location which is different from where the inventor customarily receives mail, of each inventor; and

(2) Any foreign application for patent (or inventor's certificate) for which a claim for priority is made pursuant to §1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month, and year of its filing.

Rejection of Claims under 35 U.S.C. § 102

The Examiner has rejected Claims 1, 2, 4-9, and 11 under 35 U.S.C. § 102(b) as being anticipated by Cleary (U.S. Patent No. 5,326,537). The Examiner asserts that Cleary discloses the same invention. Applicants respectfully disagree for the following reasons.

In the Preliminary Amendment and Request for Continued Examination (RCE) filed April 5, 2005, applicants submitted an Information Disclosure Statement citing Cleary, and amended Claim 1 to distinguish over Cleary. Claim 1 was amended to recite a specific structural configuration not disclosed by Cleary. Claim 1 specifically recites a stacked plate heat exchanger. Cleary discloses a heat exchanger comprised of two coiled plates. The structure taught by Cleary and the structure recited by applicants' claims are simply not equivalent. Note that applicants' stacked plate heat exchanger includes a plurality of untreated fluid channels and a plurality of treated fluid channels.

Two coiled plates, which is the structure disclosed by Cleary, can achieve only *one* untreated fluid channel and *one* treated fluid channel. While those two fluid channels are configured in an alternating relationship, that structure is not the structure that applicants have defined in Claim 1. To achieve a plurality of treated fluid channels and a plurality of untreated fluid channels, where the fluid channels are defined by a gap between adjacent sheets, *requires* a structure having at least five sheets. A first fluid channel is defined by a gap between sheet 1 and sheet 2. A second fluid channel is defined by a gap between sheet 2 and sheet 3. A third fluid channel is defined by a gap between sheet 3 and sheet 4. A fourth fluid channel is defined by a gap between sheet 4 and sheet 5. At least four fluid channels are required by Claim 1, so that both a plurality (i.e., two or more) of untreated fluid channels *and* a plurality (i.e., two or more) of treated fluid channels can be achieved. This configuration is shown in applicants' FIGURE 5.

1 Clearly, the structure defined by applicants' in Claim 1 is distinguishable from the structure
2 disclosed by Cleary. There is no evidence that one of ordinary skill in the art would have been lead
3 to modify the structure disclosed by Cleary to achieve the structure defined by applicants.
4 Applicants' recited structure is thus not taught by Cleary and is not obvious in view of the teachings
5 of Cleary. Because dependent claims are patentable for at least the same reasons as claims from
6 which they depend, Claims 2, 4-9, and 11 are patentable for at least the same reasons as Claim 1.
7 Accordingly, the rejection of Claims 1, 2, 4-9 and 11 as being anticipated by Cleary should be
8 withdrawn.

9 Claims Rejected under 35 U.S.C. § 103

10 The Examiner has rejected Claim 3 under 35 U.S.C. § 103(a) as being anticipated by Cleary (U.S.
11 Patent No. 5,326,537) in view of Beckwith (U.S. Patent No. 2,937,780). The Examiner asserts that
12 Cleary discloses the same invention, absent the use of aerogel insulation, which is taught by Beckwith.
13 Applicants respectfully disagree for the following reasons.

14 As discussed in detail above, the structure recited by applicants in Claim 1 is distinguishable
15 over the structure disclosed by Cleary. Regardless of whether it would have been obvious to use
16 aerogel in place of rock wool, Beckwith provides no suggestion to modify Cleary's structure (a coiled
17 heat exchanger comprising two coiled plates, one untreated fluid channel and one treated fluid
18 channel) to achieve an equivalent to the structure defined by applicants in Claim 1. There is no
19 evidence that such a modification would solve any problem recognized in the art. As such, there is
20 no basis for concluding that it would have been obvious to one of ordinary skill in the art to modify
21 Cleary's structure to achieve applicants invention as defined in Claim 1. Since dependent claims are
22 patentable for at least the same reasons as claims from which they depend, Claim 3 is patentable for at
23 least the same reasons as Claim 1. Accordingly, the rejection of Claim 3 as being obvious over Cleary
24 in view of Beckwith should be withdrawn.

25 Patentability of Newly Added Claim 70

26 New Claim 70 has been added. New Claim 70 is based on Claim 1, and adds the further element
27 of requiring that "*each portion of the plurality of treated fluid channels closest to the thermal*
28 *treatment zone is equidistant to each portion of the plurality of untreated fluid channels closest to the*
29 *thermal treatment zone.*" Referring to applicants FIGURE 14, note that the thermal treatment zone is
30 disposed in openings in the plates. The portion of each treated fluid channel and each untreated fluid

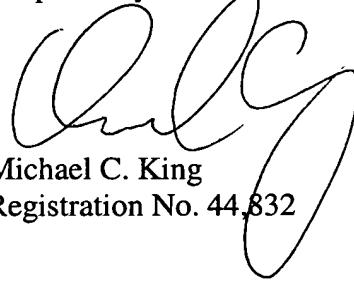
1 channel that is closest to the thermal treatment zone is the portion of the fluid channels closest to the
2 opening. In other words, the thermal treatment zone can be considered to include an inlet coinciding
3 with each untreated fluid channel that delivers untreated fluid to the thermal treatment zone, and the
4 thermal treatment zone can be considered to include an outlet coinciding with each treated fluid
5 channel that receives treated fluid. Each of those inlets and outlets is equidistant from the thermal
6 treatment zone.

7 Cleary discloses that heater passage 27 is disposed immediately adjacent to an inlet
8 aperture 23, while an outlet passage 25 is disposed a greater distance away from the heater passage.
9 The structure recited by applicants in Claim 70 is distinguishable over the structure disclosed by
10 Cleary. The cited art provides no basis for modifying Cleary to achieve an equivalent structure, nor
11 is there any evidence that such a modification would solve any problem recognized in the art.
12 Claim 70 is thus patentably distinguishable over the cited art.

13 In consideration of the preceding remarks, it is apparent that all claims remaining in the present
14 invention define a novel and non-obvious invention. Therefore, the Examiner is requested to pass this
15 case to issue at an early date. In the event that any further questions remain, the Examiner is requested to
16 telephone applicants' attorney at the number listed below.

17 Respectfully submitted,

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MCK/RMA:elm

MAILING CERTIFICATE

I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid addressed to: Commissioner for Patents, Alexandria, VA 22313-1450, on October 7, 2005.

Date: October 7, 2005

Elizabeth M. Miller